



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

SFUND RECORDS CTR
46133

REGION 9

75 Hawthorne Street
San Francisco, CA 94105-3901

January 29, 1998

Major Dan Rogers
AFMC LO/JAV
4225 Logistics Avenue, St 23
Environmental Law Directorate
Wright Patterson Air Force Base, Ohio 45433

Dear Major Rogers,

I am writing to let you know that EPA will soon be sending you an information request letter to identify potential sources of soil, groundwater or surface water contamination by perchlorate, a man-made inorganic oxidizer used as a component in solid rocket fuel. We understand that the Air Force is coordinating the effort on environmental releases of perchlorate for the Army, Navy and NASA as well as the Air Force. Please inform us if this request should be directed to those entities individually.

With recent improvements in analytical capability for low concentrations of perchlorate, this chemical has been discovered in the drinking water supplies of communities in California, Nevada and Utah. Eleven of the thirteen confirmed sites where perchlorate has been released to the environment have been associated with operations manufacturing or testing solid rocket fuels for the military or NASA (e.g., Aerojet, NASA-JPL, Lockheed Propellants, Alliant/Hercules, Rocketdyne). The other two known release sites are perchlorate manufacturing facilities in Henderson, Nevada, which were producing perchlorate for eventual use by the Department of Defense and NASA.

Perchlorate has the potential for disrupting thyroid hormone activity in humans, and the long-term effects of low concentrations in drinking water are undetermined. EPA established a provisional reference dose range of 4 to 18 parts per billion in drinking water in 1995, and California adopted an interim action level of 18 ppb for perchlorate in drinking water in 1997. Perchlorate salts (such as ammonium perchlorate, potassium perchlorate, sodium perchlorate) are quite soluble in water, exceedingly mobile in aqueous systems and can persist for many decades under typical groundwater and surface water conditions.

We are seeking information on specific locations throughout the United States where the Air Force, Army, Navy, NASA or their contractors may have used or handled perchlorate in the fabrication, maintenance, refurbishing, testing or disposal of solid rocket engines. We are also interested in all sites where other uses of perchlorate-containing chemicals may have resulted in the release of perchlorate to soil or water. We understand that storage of missiles and launching of rockets are unlikely to result in environmental release of significant amounts of perchlorate. Due to the persistence of perchlorate in soil and water, we request information on the history of

usage of perchlorate-containing chemicals by the military and NASA at the various locations.

Please provide us with any results of groundwater, surface water or soil monitoring results for perchlorate at sites where perchlorate may have been used. For sites where a past release of perchlorate to soil, surface water or groundwater is a reasonable possibility, we would like to be informed of plans to conduct monitoring.

We further request an estimate of the total amount of perchlorate used by NASA and the military each year for as far back as your records allow, and the purposes for which perchlorate was used (e.g. solid rocket propellant, flares, ordinance). Any information on the amount of perchlorate manufactured in the United States (historically and currently) and the names and locations of manufacturing facilities would be useful as well.

Thank you for your continued cooperation in addressing the environmental releases of perchlorate. Please contact Kevin Mayer at (415) 744-2248 or Mike Osinski at (202) 260-6252 if you have any questions about this request and to discuss the time frame for providing the information.

Sincerely,

A handwritten signature in black ink that reads "Kevin P. Mayer". The signature is written in a cursive style with a large, stylized 'K' and 'M'.

Kevin P. Mayer
Superfund Project Manager, SFD-7